## REMARKS

The present application was filed on November 21, 2003 with claims 1 through 27. Claims 1 through 27 are presently pending in the above-identified patent application

In the Office Action, the Examiner rejected claims 1, 2, and 4-17 under 35 U.S.C. §103(a) as being unpatentable over Deering (United States Patent Application Publication Number 2002/0050992 A1), in view of Julien (United States Patent Number 6,556,207 B1). The Examiner indicated that claim 3 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Independent Claims 1, 15-17 and 27

Independent claims 1, 15-17, and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Deering in view of Julien. Regarding claim 1, the Examiner acknowledges that Deering fails to disclose representing a three-dimensional scene and determining a quantization transform corresponding to a geometric object, the object representing at least a portion of the three-dimensional scene, but asserts that Julien discloses representing a three-dimensional scene (col. 1, lines 5-14) and determining a quantization transform corresponding to a geometric object (col. 2, lines 6-12), and further the object representing at least a portion of the three-dimensional scene (col. 2, lines 8-9)

Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness for at least the reason that there exists no motivation to combine the references, and further, even if combinable, the references collectively do not teach each and every limitation of the independent claims. See, e.g., M.P.E.P. §2143. Applicant notes that, for example, Julien discloses formulas used during quantization in col. 5, lines 15-24. Both Julien and Deering, however, *appear to use quantization as a mechanism to compress data*. Julien and Deering also appear to *decompress the data before rendering the images and thus do not perform calculations on the integer representations*.

Applicant could also find no disclosure or suggestion in either Julien or Deering to incorporate the conversion of a floating point space to a fixed point space *into*

*a quantization transform* that corresponds to a geometric object, wherein the object represents at least a portion of a three-dimensional scene. Independent claims 1, 15, and 16 require determining a *quantization transform corresponding to a geometric object, the geometric object representing at least a portion of the three-dimensional scene, the quantization transform useable for converting a floating point space to a fixed point space*, wherein the floating point space contains one or more floating point data corresponding to the geometric object; and converting, by using the quantization transform, the one or more floating point data to one or more fixed point data, and independent claims 17 and 27 require determining a *quantization transform corresponding to a geometric object, the geometric object representing at least a portion of the three-dimensional scene, the quantization transform suitable for converting a floating point space to a fixed point space*, wherein the fixed point space contains one or more fixed point data corresponding to the geometric object and the floating point space defines at least the portion of the three-dimensional scene; and applying at least the quantization transform to the one or more fixed point data.

Thus, Deering and Julien, alone or in any combination, do not disclose or suggest determining a quantization transform corresponding to a geometric object, the geometric object representing at least a portion of the three-dimensional scene, the quantization transform useable for converting a floating point space to a fixed point space, wherein the floating point space contains one or more floating point data corresponding to the geometric object; and converting, by using the quantization transform, the one or more floating point data to one or more fixed point data, as required by independent claims 1, 15, and 16, and do not disclose or suggest determining a quantization transform corresponding to a geometric object, the geometric object representing at least a portion of the three-dimensional scene, the quantization transform suitable for converting a floating point space to a fixed point space, wherein the fixed point space contains one or more fixed point data corresponding to the geometric object and the floating point space defines at least the portion of the three-dimensional scene; and applying at least the quantization transform to the one or more fixed point data, as required by independent claims 17 and 27.

Dependent Claims 2-14 and 18-26

Dependent claims 2, 4-14, and 18-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Deering in view of Julien.

Claims 2-14 and 18-26 are dependent on claims 1 and 17, respectively, and are therefore patentably distinguished over Deering and Julien (alone or in any combination) because of their dependency from independent claims 1 and 17 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. The Examiner has already indicated that claim 3 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

All of the pending claims, i.e., claims 1-27, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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